



Attorney Docket No. 0553-0242.01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Shunpei YAMAZAKI et al

Serial No.: 10/790,972

Filed: March 2, 2004

Art Unit:

For: THIN FILM FORMING DEVICE, METHOD  
OF FORMING A THIN FILM, AND SELF-LIGHT-  
EMITTING DEVICE

) I hereby certify that this correspondence  
is being deposited with the United States  
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Commissioner for Patents, P.O. Box 1450,  
Alexandria, VA 22313-1450, on July 13,  
2004

Cristie m. n. 00

Date: July 13, 2004

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. §1.97, as revised on February 4, 1992, 1135 OG 23-24, Applicant hereby calls the Examiner's attention to documents listed on the attached form, which documents may be material to the examination of this application. A copy of each of the references was submitted to the Patent Office or was cited by the Examiner in the pending prior application, Serial No. 09/798,608, filed March 2, 2001, which is being relied upon for an earlier filing date under 35 U.S.C. 120 (37 C.F.R. §1.98(d)).

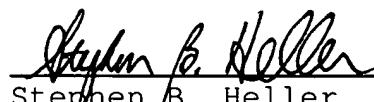
No inference should be drawn that the attached list sets forth a comprehensive investigation of the prior art, that any or all are pertinent to the invention, or that any apparatus disclosed is equivalent to the subject invention.

The citation of the above-discussed documents is not to be construed as an assertion that more pertinent art could not possibly be in existence. Citation of any document herein is not to be construed as an admission that any subject matter disclosed in the document is necessarily within the inventive field of endeavor, that any disclosure is necessarily prior in time to a particular date which may be relevant to the instant patent application, and/or that any disclosure is otherwise necessarily prior art with respect to the instant invention.

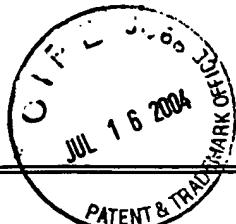
Applicant also respectfully reserves the right to later set forth how the instant invention is distinguished over the disclosure of any document or other art, including the disclosure of those documents discussed herein, that may be cited by the Examiner in rejecting a claim in the instant patent application.

A first office action, notice of allowance or issue fee notification has not been received in this case, so applicant does not believe that a fee is due. However, if any such fee is required, please charge our Deposit Account No. 50/1039.

Respectfully submitted,

  
\_\_\_\_\_  
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| LIST OF PUBLICATIONS<br>CITED BY APPLICANT | <u>Atty. Docket No.</u><br>0553-0242.01       | <u>Serial No.</u><br>10/790,972 |
|  | <u>Applicant</u><br>Shunpei YAMAZAKI<br>et al |                                 |
|  | <u>Filing Date</u><br>March 2, 2004           | <u>Group</u>                    |

#### U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL | DOCUMENT NUMBER    | DATE     | NAME            | CLASS | SUB-CLASS | FILING DATE |
|-------------------|--------------------|----------|-----------------|-------|-----------|-------------|
|                   | 5,264,376          | 11/23/93 | Abbott et al    | 437   | 5         | 06/24/91    |
|                   | 6,300,021          | 10/09/01 | Gorog et al     | 430   | 23        | 06/14/99    |
|                   | 6,348,359          | 02/19/02 | Van Slyke et al | 438   | 29        | 09/22/00    |
|                   | US 2002/0031874 A1 | 03/14/02 | Yamazaki et al  | 438   | 156       | 03/02/01    |
|                   | 6,403,392          | 06/11/02 | Burrows et al   | 438   | 22        | 11/28/00    |

#### FOREIGN PATENT DOCUMENTS

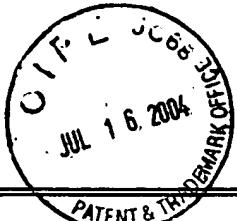
|  | DOCUMENT NUMBER | DATE | NAME | English Abstract | English Trans. | FILING DATE |
|--|-----------------|------|------|------------------|----------------|-------------|
|  |                 |      |      |                  |                |             |

#### OTHER PRIOR ART - NON-PATENT LITERATURE DOCUMENTS (Including Author, Title, Date, Pertinent Pages)

- 1) TSUTSUI, T. et al, "Electroluminescence in Organic Thin Films," Photochemical Processes in Organized Molecular Systems, pp. 437-450, (1991).
- 2) BALDO, M.A. et al, "Highly Efficient Phosphorescent Emission from Organic Electroluminescent Devices," Nature, vol. 395, pp. 151-154, September 10, (1998).
- 3) BALDO, M.A. et al, "Very High-Efficiency Green Organic Light-Emitting Devices Based on Electrophosphorescence," Applied Physics Letters, vol. 75, no. 1, pp. 4-6, July 5, (1999).
- 4) TSUTSUI, T. et al, "High Quantum Efficiency in Organic Light-Emitting Devices with Iridium-Complex as a Triplet Emissive Center," Japanese Journal of Applied Physics, vol. 38, part 2, no. 12B, pp. L1502-L1504, December 15, (1999).

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|-----------|------------------|
| EXAMINER: | DATE CONSIDERED: |
|-----------|------------------|

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP form. Draw line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.



| LIST OF PUBLICATIONS<br>CITED BY APPLICANT   |  | <u>Atty. Docket No.</u><br>0553-0242.01  |   | <u>Serial No.</u><br>10/790,972 |                                |  |
|--|--|--|---|---------------------------------|--------------------------------|--|
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|  |  | <u>Filing Date</u><br>March 2, 2004  |   | <u>Group</u>                    |                                |  |
| U.S. PATENT DOCUMENTS  |  |  |   |                                 |                                |  |
| *EXAMINER INITIAL  | DOCUMENT NUMBER  | DATE   | NAME  | CLASS                           | SUB-CLASS                      | FILING DATE  |
|  | 5,247,190<br>5,399,502<br>US 2001/<br>0017409 A1<br>6,445,128<br>6,448,718   | 09/21/93<br>03/21/95<br>08/30/01<br>09/03/02<br>09/10/02                                 | Friend et al<br>Friend et al<br>Hiroki et al<br>Bush et al<br>Battersby   | 257<br>437<br>257<br>313<br>315 | 40<br>1<br>723<br>509<br>169.3 | 12/28/90<br>05/05/93<br>02/21/01<br>08/23/99<br>10/19/00                             |
| FOREIGN PATENT DOCUMENTS   |  |  |   |                                 |                                |  |
|  | DOCUMENT NUMBER  | DATE   | NAME  | English Abstract                | English Trans.                 | FILING DATE  |
|  | WO 90/13148<br><br>JP 10-012377<br>JP 10-092576<br><br>JP 10-153967<br>EP 0 880 303<br>EP 0 892 028<br>JP 11-054270  | 11/01/90<br><br>01/16/98<br>04/10/98<br><br>06/09/98<br>11/25/98<br>01/20/99<br>02/26/99 | Cambridge Research & Innovation Ltd.<br>Seiko Epson Corp.<br>Cambridge Display Technol Ltd.<br>Seiko Epson Corp.<br>Seiko Epson Corp.<br>Seiko Epson Corp.<br>Seiko Epson Corp. | X<br>X                          |                                | 04/18/90<br>06/19/96<br>04/18/97<br><br>11/25/96<br>11/25/97<br>07/14/98<br>07/30/97 |
| OTHER PRIOR ART - NON-PATENT LITERATURE DOCUMENTS<br>(Including Author, Title, Date, Pertinent Pages)  |  |  |   |                                 |                                |  |
|  | 5) SCHENK, H. et al, "Polymers for Light Emitting Diodes," EURODISPLAY '99, Proceedings of the 19 <sup>th</sup> International Display Research Conference, Berlin, Germany, September 6-9, 1999, pp. 33-37 (1999). |  |   |                                 |                                |  |
| EXAMINER:  |  |  |   | DATE CONSIDERED:                |                                |  |
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| *EXAMINER INITIAL | DOCUMENT NUMBER | DATE     | NAME             | CLASS | SUB-CLASS | FILING DATE |
|-------------------|-----------------|----------|------------------|-------|-----------|-------------|
|                   | 3,060,429       | 10/23/62 | Winston          | 346   | 1         | 05/16/58    |
|                   | 3,147,142       | 09/01/64 | F. S. Rudo       | 118   | 301       | 01/25/61    |
|                   | 3,416,153       | 12/10/68 | Hertz et al      | 346   | 75        | 10/08/65    |
|                   | 3,596,275       | 07/27/71 | Sweet            | 346   | 1         | 03/25/64    |
|                   | 3,747,120       | 07/17/73 | Stemme           | 346   | 75        | 01/10/72    |
|                   | 3,946,398       | 03/23/76 | Kyser et al      | 346   | 1         | 06/29/70    |
|                   | 4,226,182       | 10/07/80 | Danielsen et al. | 101   | 129       | 03/13/79    |
|                   | 4,620,196       | 10/28/86 | Hertz et al      | 346   | 1.1       | 01/31/85    |
|                   | 5,344,676       | 09/06/94 | Kim et al.       | 427   | 468       | 10/23/92    |
|                   | 5,583,552       | 12/10/96 | Mutoh            | 347   | 80        | 11/10/94    |
|                   | 5,811,020       | 09/22/98 | Alwan            | 216   | 42        | 07/23/97    |
|                   | 5,827,628       | 10/27/98 | Shin et al       | 430   | 28        | 03/11/97    |
|                   | 5,916,729       | 06/29/99 | Kobayashi et al. | 430   | 270.1     | 02/12/97    |
|                   | 5,952,037       | 09/14/99 | Nagayama et al.  | 427   | 66        | 05/08/97    |

#### FOREIGN PATENT DOCUMENTS

|  | DOCUMENT NUMBER | DATE     | NAME             | English Abstract | English Trans. | FILING DATE |
|--|-----------------|----------|------------------|------------------|----------------|-------------|
|  | JP 11-040358    | 02/12/99 | Seiko Epson Corp | X                |                | 07/16/97    |
|  | JP 11-054272    | 02/26/99 | Seiko Epson Corp | X                |                | 07/31/97    |



OTHER PRIOR ART - NON-PATENT LITERATURE DOCUMENTS  
(Including Author, Title, Date, Pertinent Pages)

- 6) SWEET, R.G., "High Frequency Recording with Electrostatically Deflected Ink Jets," The Review of Scientific Instruments, vol. 36, no. 2, pp. 131-136, February, (1965).
- 7) PIMBLEY, W.T. et al, "Satellite Droplet Formation in a Liquid Jet," IBM J. Res. Develop., vol. 21, no. 1, pp. 21-30, January, (1977).
- 8) HERTZ, C.H. et al, "Ink Jet Printing of High Quality Color Images," Journal of Imaging Technology, vol. 15, no. 3, pp. 141-148, June, (1989).
- 9) KIMURA, M. et al, "Low-Temperature Poly-Si TFT Driven Light-Emitting Polymer Displays and Digital Gray Scale for Uniformity," IDW '99, pp. 171-174, (1999).
- 10) HUNTER, I.M. et al, "Design of an Active Matrix Polymer-LED Display with Reduced Horizontal Cross-Talk," IDW '99, pp. 1095-1096, (1999).
- 11) SHIMODA, T. et al, "Technology for Active Matrix Light Emitting Polymer Displays," IDEM 99, pp. 107-110, (1999).
- 12) LEE, J.D. et al, "Two-Dimensional Nozzle Arrangement in a Monolithic Inkjet Printhead for High-Resolution and High-Speed Printing," IDEM 99 pp. 127-130, (1999).

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